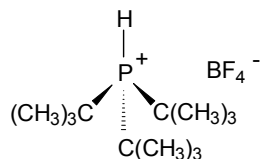
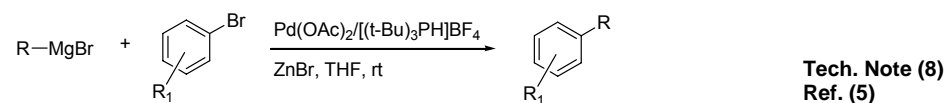
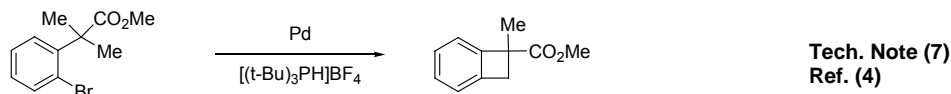
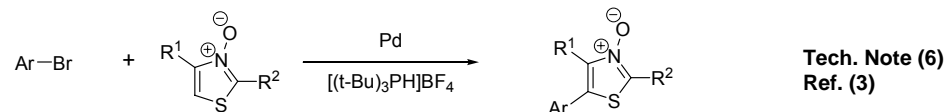
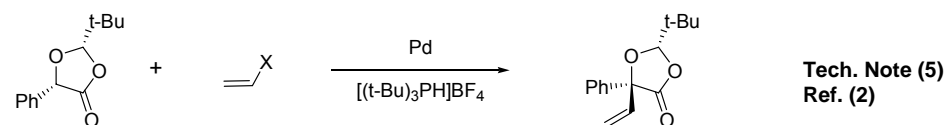
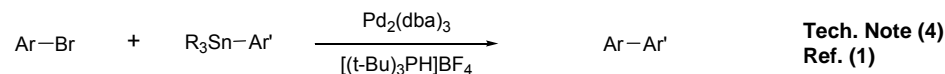
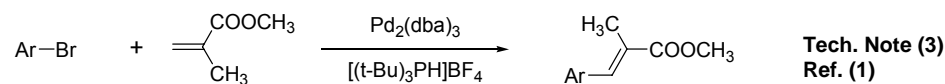
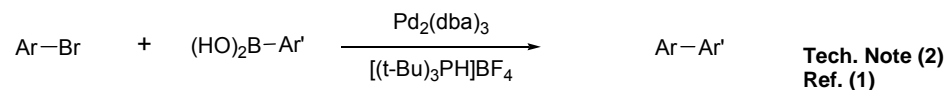


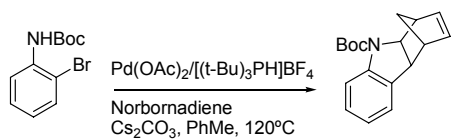
Catalog # 15-6000 Tri-*t*-butylphosphonium tetrafluoroborate, 99%

Note: Phosphine Ligand Kit component.

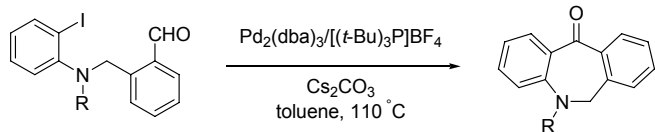
## Technical Notes:

1. Air-stable, non-pyrophoric precursor of the Tri-*t*-butylphosphine ligand which is used in a variety of catalytic processes.
2. Ligand for Suzuki cross-couplings.
3. Ligand for Heck Reactions.
4. Ligand for Stille Cross-couplings.
5. Ligand for  $\alpha$ -Arylation and vinylation of arylmandelic acid derivatives.
6. Ligand for direct arylation of heterocycles
7. Synthesis of benzocyclobutenes by C-H activation.
8. Cross-coupling of Grignard reagents and aryl bromides.
9. Palladium catalyzed annulation of haloanilines.
10. Palladium-Catalyzed Acylation.
11. Palladium Catalyzed Carbonylative Heck Reaction.
12. Palladium-catalyzed aminosulfonylation.
13. Palladium-catalyzed intramolecular C–O bond formation.
14. Ruthenium-catalyzed cross-coupling of aldehydes with arylboronic acid.

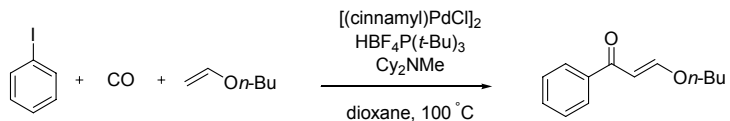




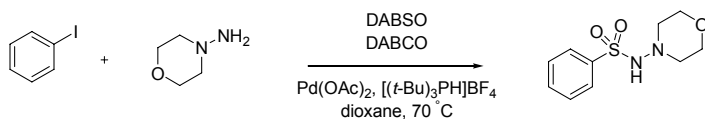
**Tech. Note (9)**  
**Ref. (6)**



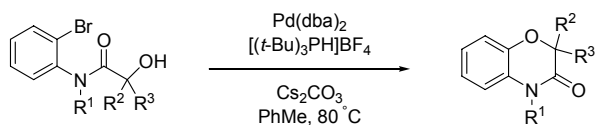
**Tech. Note (10)**  
**Ref. (7)**



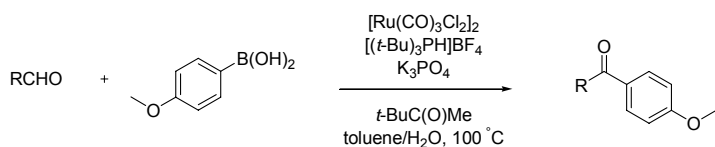
**Tech. Note (11)**  
**Ref. (8)**



**Tech. Note (12)**  
**Ref. (9)**



**Tech. Note (13)**  
**Ref. (10)**



**Tech. Note (14)**  
**Ref. (11)**

**References:**

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